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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/530,282

04/04/2005

Terence Dominic Gillam

15943US

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7590

03/24/2008

SHELDON MAK ROSE & ANDERSON PC

100 Corson Street

Third Floor

PASADENA, CA 91103-3842

EXAMINER

HOOK, JAMES F

ART UNIT

PAPER NUMBER

3754

MAIL DATE

DELIVERY MODE

03/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/530,282	Applicant(s) GILLAM, TERENCE DOMINIC	
	Examiner James F. Hook	Art Unit 3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8, 9, 11, and 13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ibak (DE 20207638). The reference to Ibak discloses the recited inflatable bladder 12 and camera 14 assembled in series at the distal end of a cable and hose where figure 2 shows such bending around corners, and the camera has a view in front of the bladder and therefore sees the pipe ahead or advance of the bladder, where the use of such as a test probe is merely intended use where the plug assembly is capable of use when testing when the type of test or requirements of the test are not claimed, where the bladder is seen to be annular to the hose, the bladder is seen to be cylindrical and elastic in that it expands with air, which inherently states that it is sealed in an airtight manner at both ends, and where it is designed for use in a pipe and sized for use as such inherently or else it would not function as intended to seal as a plug.

Claims 1, 2, 4, 6, 15, 16, 18, 20, 22, 23, 26, and 27 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Barton (761). The reference to Barton discloses the recited flexible probe for sealing a pipe and supplying a patch comprising an inflatable bladder 52, a camera 38 in series, a cable 40,58,66,70,36, a hose 73, the bladder is annular to the cable and hose, the cable is used to pull the plug assembly through and out of the pipe, a repair patch 72 is sized such that it is shorter in length than the bladder, therefore the bladder will expand to touch the wall of the pipe completely sealing the ends of the patch to the wall inherently, being made of flexible materials such inherently is flexible enough to bend corners where the angle of the corner is not recited that it must be capable of bending around, the bladder is sealed at the ends to expand in an airtight manner or else it would not function correctly, the bladder is designed and sized for a particular size pipe and is pressurized to a specific pressure, and where the camera views ahead of the bladder and therefore is in advance of the plug structure and sees views that area in advance of the bladder structure in the feed direction, and a jig 78 is provided to apply adhesive prior to insertion of the sleeve into the pipe.

Claims 1, 2, 4, 6, 8, 9, 11, 13, 15, 16, 18, 20, 22, 23, 25, and 27 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Lange (398). The reference to Lange discloses the recited flexible probe for sealing a pipe and supplying a patch comprising an inflatable bladder 110, a camera 34 in series, a cable 70, a hose 71, the bladder is annular to the cable and hose, the cable is used to pull the plug assembly

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through and out of the pipe, a repair patch 120 is sized such that it is shorter in length than the bladder, therefore the bladder will expand to touch the wall of the pipe completely sealing the ends of the patch to the wall inherently, being made of flexible materials such inherently is flexible enough to bend corners as seen in figure 4, the bladder is sealed at the ends to expand in an airtight manner or else it would not function correctly, the bladder is designed and sized for a particular size pipe and is pressurized to a specific pressure, and where the camera views ahead of the bladder and views the area in advance of the bladder structure in the feed direction, and a jig is provided to apply adhesive prior to insertion of the sleeve into the pipe and there is additional structure on which the adhesive sleeve is applied to the bladder to prevent it sticking thereto which also would provide structure of a jig, where such can also be used for pressure testing as well as such is merely intended use and the apparatus is capable of use for testing as well.

Claims 8, 9, 11, and 13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Mathison (728). The reference to Mathison discloses the recited inflatable bladder 13 and camera 14 assembled in series at the distal end of a cable and hose 12,22 where figure 1 shows such past a corner and therefore inherently it is capable of bending around corners, and the camera has a view in front of the bladder and therefore sees the pipe ahead or advance of the bladder, where the use of such as a test probe is set forth and with no specific test recited the testing used with the apparatus meets the claim language, where the bladder is seen to be annular to the hose, the bladder is seen to be cylindrical and elastic in that it expands with air, which

inherently states that it is sealed in an airtight manner at both ends, and where it is designed for use in a pipe and sized for use as such inherently or else it would not function as intended to seal as a plug.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5, 7, 17, 19, 21, 24, 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barton (761) in view of Mathison (206). The reference to Barton discloses all of the recited structure with the exception of providing the inflatable bladder with spaced ribs. The reference to Mathison discloses that it is old and well known in the art to provide an inflatable bladder with spaced ribs or that such can be formed without ribs provided to avoid irregularities in the surface of the pipe and improve the seal. It would have been obvious to one skilled in the art to modify the inflatable bladder in Barton by providing the sleeve with ribs to improve the seal and allow better contact when the pipe has irregularities as suggested by Mathison where such would insure a better installation thereby saving money in premature failure and future repair costs.

Claims 3, 5, 7, 10, 12, 14, 17, 19, 21, 24, 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lange in view of Mathison (206). The reference to Lange discloses all of the recited structure with the exception of providing the inflatable bladder with spaced ribs. The reference to Mathison discloses that it is old and well known in the art to provide an inflatable bladder with spaced ribs or that such can be formed without ribs provided to avoid irregularities in the surface of the pipe and improve the seal. It would have been obvious to one skilled in the art to modify the inflatable bladder in Lange by providing the sleeve with ribs to improve the seal and allow better contact when the pipe has irregularities as suggested by Mathison where such would insure a better installation thereby saving money in premature failure and future repair costs.

Claims 10, 12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathison (728) in view of Mathison (206). The reference to Mathison '728 discloses all of the recited structure with the exception of providing the inflatable bladder with spaced ribs. The reference to Mathison '206 discloses that it is old and well known in the art to provide an inflatable bladder with spaced ribs or that such can be formed without ribs provided to avoid irregularities in the surface of the pipe and improve the seal. It would have been obvious to one skilled in the art to modify the inflatable bladder in Mathison '728 by providing the sleeve with ribs to improve the seal and allow better contact when the pipe has irregularities as suggested by Mathison '206 where such would insure a better installation thereby saving money in premature failure and future repair costs.

Claims 10, 12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ibak (DE 20207638) in view of Mathison (206). The reference to Ibak discloses all of the recited structure with the exception of providing the inflatable bladder with spaced ribs. The reference to Mathison '206 discloses that it is old and well known in the art to provide an inflatable bladder with spaced ribs or that such can be formed without ribs provided to avoid irregularities in the surface of the pipe and improve the seal. It would have been obvious to one skilled in the art to modify the inflatable bladder in Ibak by providing the sleeve with ribs to improve the seal and allow better contact when the pipe has irregularities as suggested by Mathison '206 where such would insure a better installation thereby saving money in premature failure and future repair costs.

Claims 10, 12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (JP 08159978) in view of Mathison (206). The reference to Sugiyama discloses all of the recited structure with the exception of providing the inflatable bladder with spaced ribs. The reference to Mathison '206 discloses that it is old and well known in the art to provide an inflatable bladder with spaced ribs or that such can be formed without ribs provided to avoid irregularities in the surface of the pipe and improve the seal. It would have been obvious to one skilled in the art to modify the inflatable bladder in Sugiyama by providing the sleeve with ribs to improve the seal and allow better contact when the pipe has irregularities as suggested by Mathison '206 where such would insure a better installation thereby saving money in premature failure and future repair costs.

Response to Arguments

Applicant's arguments filed November 30, 2007 have been fully considered but they are not persuasive. Many of the arguments deal with subject matter applicant's state they could not find in the references cited under 35 USC 102 under being clearly anticipated by such references. The examiner did not feel that the references needed further explanation than was provided in the PCT examination report, therefore such was not repeated. However, the examiner has given a general recitation above as to what is considered to cover specific parts of the claim language which applicant's questioned. Any arguments presented that were directed to a specific reference and are covered by the description above will not be repeated, applicant is directed to the explanations above for detailed reasoning held by the examiner with respect to what the references teach. With regards in general to all references that were argued not to teach testing, most are considered to be merely intended use where the references are capable of use for testing purposes and Mathison actually recites it's use as a test plug. It is also noted that a specific test or amount of pressure needed for the test is not set forth so all the references are capable of being used for testing when such is not specific to what is required for the test. Sugiyama has been dropped so the arguments are moot. With respect to Barton, applicants argue such does not have a "single cable" which is not persuasive when the claim language is broader than the argument and does not recite a single cable therefore the reference can teach a cable of a plurality of pieces and meet the claim language. Barton also teaches that the bladder is annular about the cable 66 and hose 73, and the camera does see in advance of the bladder

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which is all that is required to meet the claim language, and as set forth above the bladder is longer than the patch and inherently would press the patch ends to the pipe and extend past it to contact the wall where the patch ends. Barton also teaches a jig 78 for the adhesive. With respect to Lange, the bladder is annular, the tray recited by applicant is optional and not always needed, and is provided over the bladder which is continuous, therefore applicant has misrepresented the teachings of this reference where the bladder is not disclosed as being only partial and extending from the tray, and likewise the vacuum pump is also not always required either. There is also structure to meet the jig requirement as set forth above. Mathison is used for testing as set forth above, and is shown past a corner therefore inherently it must be flexible enough to get around a corner and when no specific angle of corner is given, then a corner of less curvature would also allow passage of the device as required, and as set forth above a single cable is not required by the claim language and therefore the cable shown in Mathison can be made of a plurality of pieces and still meet the claim language. The camera in Mathison is in advance of the apparatus and shows an advance view in the feed direction as set forth above. With regards to the discussion of the 103 rejections, a standard argument is that Mathison 206 does not teach various structures not shown in the references it modifies, however, this is not persuasive when the references themselves teach the required structure as set forth above and the 206 reference is only being used to teach adding ribs to an inflatable bladder structure. Since all of the references teach inflatable bladders it is considered obvious to one skilled in the art

using common sense that ribs can be applied to any inflatable bladder and would expect results in that the 206 reference teaches an inflatable bladder with ribs.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references to Conklin, Frey, Maimets, and Schempf disclosing state of the art inflatable devices including for applying inner patches to pipes.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (571) 272-4903. The examiner can normally be reached on Monday to Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James F. Hook/
Primary Examiner, Art Unit 3754

JFH